

CLAIMS

1. A program recommendation apparatus for generating a program guide that includes recommended program information, comprising:

5 a program information obtaining unit operable to obtain a plurality of pieces of program information each relating to a program to be broadcast;

 a first obtaining unit operable to obtain first recommendation information relating to a recommended program;

10 a second obtaining unit operable to obtain second recommendation information relating to a different recommended program;

 a recommendation information generating unit operable to generate, for a user, user recommendation information relating to a program recommended to the user, based on the obtained first recommendation information and second recommendation information;

15 a program guide generating unit operable to extract one or more pieces of recommended program information each relating to a program recommended to the user, from the obtained plurality of pieces of program information, with reference to the generated user recommendation information, and generate a program guide including the extracted pieces of recommended program information in association with the user; and

25 an output unit operable to output the generated program guide to be displayed.

2. The program recommendation apparatus of Claim 1, wherein the program guide generating unit aligns the extracted pieces

of recommended program information in an order determined according to a priority assigned to the user, and generates the program guide including the aligned extracted pieces of recommended program information.

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3. The program recommendation apparatus of Claim 2, further comprising:

10 a screen generating unit operable to form a plurality of user display areas respectively having sizes determined according to priorities assigned to a plurality of users including the user, and generate a priority screen including the formed plurality of user display areas; and

a screen output unit operable to output the generated priority screen to be displayed.

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4. The program recommendation apparatus of Claim 3, wherein

15 the screen generating unit generates the priority screen which is circular, forms the plurality of user display areas which are respectively sectors, and arranges the sectoral user display areas around a central point of the circular priority screen.

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5. The program recommendation apparatus of Claim 3, wherein

25 the screen generating unit forms the plurality of user display areas which are rectangular, and arranges the rectangular user display areas within the priority screen.

6. The program recommendation apparatus of Claim 3, wherein

the screen generating unit further causes a plurality of pieces of priority information respectively indicating the

priorities assigned to the plurality of users, to be displayed in the plurality of user display areas.

7. The program recommendation apparatus of Claim 3, wherein

5 the screen generating unit further obtains genre information indicating a program genre corresponding to the user recommendation information, and causes the obtained genre information to be displayed within a corresponding one of the plurality of user display areas.

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8. The program recommendation apparatus of Claim 3, wherein

 the screen generating unit further obtains a representative image of the program recommended by the user recommendation information, and causes the obtained representative image to be
15 displayed within a corresponding one of the plurality of user display areas.

9. The program recommendation apparatus of Claim 3, further comprising:

20 a receiving unit operable to receive an increase or decrease in the sizes of the plurality of user display areas included in the priority screen; and

 a modifying unit operable to modify the priorities assigned to the plurality of users, based on the sizes of the plurality
25 of user display areas which have been changed according to the received increase or decrease.

10. The program recommendation apparatus of Claim 1, wherein

 the program guide generating unit aligns the extracted pieces

of recommended program information in a chronological order, and generates the program guide including the chronologically aligned extracted pieces of recommended program information.

5 11. The program recommendation apparatus of Claim 1, wherein
the program information obtaining unit obtains the plurality
of pieces of program information, by receiving a broadcast wave
carrying the plurality of pieces of program information and
extracting the plurality of pieces of program information from
10 the received broadcast wave.

12. The program recommendation apparatus of Claim 11, wherein
the program information obtaining unit obtains the plurality
of pieces of program information each of which at least includes
15 a summary of the program, a scheduled broadcast time of the program,
a duration of the program, and a broadcast channel of the program,
and

the program guide generating unit extracts the pieces of
recommended program information, with reference to the summary
20 of the program included in each of the plurality of pieces of program
information.

13. The program recommendation apparatus of Claim 1, wherein
the first obtaining unit obtains the first recommendation
25 information from a different apparatus, and

the second obtaining unit includes:

a recommendation information storing unit prestoring the
second recommendation information; and

a recommendation information reading unit operable to read

the second recommendation information from the recommendation information storing unit.

14. The program recommendation apparatus of Claim 13, wherein
5 the program recommendation apparatus is connected to the different apparatus via a network, and

the first obtaining unit obtains the first recommendation information from the different apparatus via the network.

10 15. The program recommendation apparatus of Claim 13, wherein
the first obtaining unit obtains the first recommendation information including a first condition to select the recommended program,

the second obtaining unit obtains the second recommendation
15 information including a second condition to select the different recommended program, and

the recommendation information generating unit extracts the first condition and second condition respectively from the first recommendation information and second recommendation information,
20 combines the extracted first condition and the second condition using a logical operation, to generate a recommendation condition, and generates the user recommendation information including the generated recommendation condition.

25 16. The program recommendation apparatus of Claim 15, wherein
the first obtaining unit obtains the first recommendation information including first keyword information as the first condition,

the second obtaining unit obtains the second recommendation

information including second keyword information as the second condition,

the recommendation information generating unit extracts the first keyword information and second keyword information respectively from the first recommendation information and second recommendation information, and combines, using a logical operation, the extracted first keyword information and second keyword information, to generate the recommendation condition, and

the program guide generating unit extracts the pieces of recommended program information satisfying the recommendation condition included in the user recommendation information.

17. The program recommendation apparatus of Claim 15, wherein

the first obtaining unit obtains the first recommendation information including a first search formula generated by combining a plurality of keywords using a logical operation, as the first condition,

the second obtaining unit obtains the second recommendation information including a second search formula generated by combining a plurality of keywords using a logical operation, as the second condition,

the recommendation information generating unit extracts the first search formula and second search formula respectively from the first recommendation information and second recommendation information, and combines, using a logical operation, the extracted first search formula and second search formula, to generate the recommendation condition, and

the program guide generating unit extracts the pieces of

recommended program information satisfying the recommendation condition included in the user recommendation information.

18. The program recommendation apparatus of Claim 15, wherein
5 the recommendation information generating unit receives a designation of a logical operation from the user, and combines the first condition and second condition using the received logical operation.

10 19. The program recommendation apparatus of Claim 1, wherein
 the first obtaining unit obtains the first recommendation information including viewing permission information indicating whether the user has viewing permission,

 the recommendation information generating unit generates
15 the user recommendation information including the viewing permission information, and

 the program guide generating unit extracts the viewing permission information from the user recommendation information, and when the extracted viewing permission information indicates
20 that the user has viewing permission, extracts the pieces of recommended program information.

20. The program recommendation apparatus of Claim 1, wherein
 the first obtaining unit obtains the first recommendation
25 information including generator identification information indicating a generator who has generated the first recommendation information.

21. The program recommendation apparatus of Claim 1, further

comprising:

a recommendation information generation unit operable to generate output recommendation information, based on the user recommendation information generated by the recommendation

5 information generating unit; and

an external output unit operable to output the generated output recommendation information to an external apparatus.

22. The program recommendation apparatus of Claim 21, wherein

10 the program recommendation apparatus is connected to the external apparatus via a network, and

the external output unit outputs the output recommendation information to the external apparatus via the network.

15 23. The program recommendation apparatus of Claim 1, which is a reception/recording apparatus for receiving and recording a broadcast,

the program recommendation apparatus further comprising:

20 a receiving unit operable to receive a broadcast program content;

an information storing unit;

a judging unit operable to judge whether the received program content is to be recorded, with reference to the user recommendation information generated by the recommendation information
25 generating unit; and

a writing unit operable to write, when the judging unit judges that the program content is to be recorded, the program content into the information storing unit.

24. The program recommendation apparatus of Claim 23, wherein
the program guide output by the output unit is displayed
by a display apparatus, and

the program recommendation apparatus further comprises:

5 a reception unit operable to receive a selection of one of
programs included in the program guide displayed by the display
apparatus;

a reading unit operable to read a program content
corresponding to the selected program, from the information storing
10 unit;

a signal generating unit operable to generate an audio-visual
signal from the read program content; and

a signal output unit operable to output the generated
audio-visual signal to the display apparatus.

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25. A program recommendation method used in a program
recommendation apparatus for generating a program guide including
recommended program information, the program recommendation
method comprising:

20 a program information obtaining step of obtaining a plurality
of pieces of program information each relating to a program to
be broadcast;

a first obtaining step of obtaining first recommendation
information relating to a recommended program;

25 a second obtaining step of obtaining second recommendation
information relating to a different recommended program;

a recommendation information generating step of generating,
for a user, user recommendation information relating to a program
recommended to the user, based on the obtained first recommendation

information and second recommendation information;

5 a program guide generating step of extracting one or more pieces of recommended program information each relating to a program recommended to the user, from the obtained plurality of pieces of program information, with reference to the generated user recommendation information, and generating a program guide including the extracted pieces of recommended program information in association with the user; and

10 an output step of outputting the generated program guide to be displayed.

26. A computer program to be used in a program recommendation apparatus for extracting program information relating to a recommended program, the computer program causing a computer to
15 execute:

a program information obtaining step of obtaining a plurality of pieces of program information each relating to a program to be broadcast;

20 a first obtaining step of obtaining first recommendation information relating to a recommended program;

a second obtaining step of obtaining second recommendation information relating to a different recommended program;

25 a recommendation information generating step of generating, for a user, user recommendation information relating to a program recommended to the user, based on the obtained first recommendation information and second recommendation information;

a program guide generating step of extracting one or more pieces of recommended program information each relating to a program recommended to the user, from the obtained plurality of

pieces of program information, with reference to the generated user recommendation information, and generating a program guide including the extracted pieces of recommended program information in association with the user; and

- 5 an output step of outputting the generated program guide to be displayed.

27. The computer program of Claim 26 which is recorded on a computer-readable recording medium.